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RESEARCH ARTICLE

Does Responsiveness Dimensions Play the Key Role in Shaping Patient Satisfaction in Public Hospitals?

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Abstract

This study investigates how Service Quality Dimensions influence patient satisfaction in a public hospital setting, using Syarif Hidayatullah Hospital as a case study. Employing the Service Quality Model, five dimensions, such as Tangibility, Reliability, Responsiveness, Assurance, and Empathy, were analyzed through a Mixed-Method approach that combined quantitative survey data from 120 respondents with qualitative feedback using NVivo Software. The results indicated that Responsiveness, particularly in pharmacy services, was the most influential factor affecting patient satisfaction but also the weakest in performance. Descriptive and inferential statistics showed significant delays in prescription fulfillment, especially for Mixed and Concoction types, with average waiting times exceeding 30 minutes. Qualitative themes further revealed dissatisfaction related to communication breakdowns, lack of queue transparency, and insufficient updates during pharmacy processes. While Empathy and Assurance received high ratings, they could not compensate for operational inefficiencies that shaped patients' final impressions. The study concludes that enhancing Responsiveness through workflow redesign, digital queue systems, and real-time communication tools is critical to improving overall satisfaction. These findings contribute to healthcare service improvement by emphasizing the strategic role of Responsiveness in public hospital environments.

Keyword: Service Quality, Service Quality Dimension, Patient Satisfaction, Responsiveness, Pharmacy Waiting Time,

Introduction

In today's healthcare environment, the provision of quality services is no longer a supplementary concern but a central pillar in sustaining patient satisfaction, institutional reputation, and system sustainability. The shift from provider-centered to patient-centered models has demanded greater focus on the holistic experience of patients, especially in public healthcare institutions where service expectations are rising and resource limitations remain a reality. Patients today assess their healthcare experience not only based on the outcome of the medical procedures they undergo but also on their interactions with healthcare personnel, the efficiency of administrative systems, waiting times, and overall comfort throughout their medical journey. This evolution in patient expectations has led scholars and healthcare administrators to seek robust frameworks for evaluating and improving service quality. One of the most widely acknowledged frameworks in this domain is the Service Quality Model developed by Parasuraman et al., which identifies five key dimensions, such as Tangibility, Reliability, Responsiveness, Assurance, and Empathy, as essential components of perceived service quality. These dimensions have been extensively validated in various sectors, including healthcare, and are critical in understanding the dynamics of patient satisfaction.

Within the Indonesian healthcare system, which faces a unique blend of systemic pressure, rising service demand, and constrained public resources, understanding the nuances of service quality becomes more vital. In government-run hospitals such as Syarif Hidayatullah Hospital, which also operates as a teaching hospital under the Universitas Islam Negeri Syarif Hidayatullah Jakarta, the dual role of providing healthcare and supporting academic development places additional strain on service delivery. Despite investments in digital health records, improved infrastructure, and enhanced diagnostic tools, patient dissatisfaction persists, especially in operational departments such as the pharmacy unit, where delays, lack of proactive communication, and long queues are commonly reported. These inefficiencies often occur not due to lack of clinical capability, but because of fragmented workflows, human resource shortages, and a lack of real-time service monitoring tools. Studies like those by Han et al. (2024), Nashwan et al. (2021), and Mehrabian et al. (2021) have emphasized that Responsiveness Dimension - defined as the institution's willingness and ability to assist patients promptly - is increasingly becoming the most decisive factor in shaping patient experiences. This is particularly true in high-volume public hospitals where delays in pharmacy services or outpatient care erode patient confidence and trigger dissatisfaction, even if the medical treatment itself is adequate.

The academic literature in this area is rich in its global scope but still lacks localized empirical validation in Southeast Asian public hospitals, particularly those that integrate religious values, government policy, and digital transformation agendas. While international studies have explored the influence of various service dimensions on patient satisfaction, few have employed Mixed-Method approaches that integrate statistical patterns with qualitative narratives to unearth deeper service delivery issues. Moreover, the literature has not sufficiently explored which specific service nodes, such as pharmacy waiting times, act as critical satisfaction inflection points in the patient journey. This research aims to close that gap by applying a multi-theoretical foundation, which includes the Service Quality Model, Expectation-Confirmation Theory (Oliver, 1980),

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and Patient-Centered Care Theory to analyze the real-world application of service dimensions at Syarif Hidayatullah Hospital. Expectation-Confirmation Theory adds psychological depth by revealing that satisfaction is not merely a reaction to absolute service performance but rather to the alignment between expected and experienced service. This theoretical fusion allows the research to evaluate not just what is lacking in service, but how these deficiencies interact with patient expectations to influence satisfaction outcomes. Previous Indonesian studies, such as those by Purwanto et al. (2021) and Librianto et al. (2022), have highlighted the value of this approach but often stopped short of proposing actionable strategies based on patient segmentation or operational hospital purposes, which is the gap of this study seeks to fill.

The primary objective of this research is to critically examine how the five dimensions of service quality affect patient satisfaction, with a specific focus on identifying the most influential dimension in the case of Syarif Hidayatullah Hospital. In doing so, the study aims to answer the following questions such as "*How do patients perceive each Service Quality Dimension?*", "*Which dimension exerts the greatest influence on their overall satisfaction?*", and "*What operational or managerial strategies can be implemented to address deficiencies, particularly in departments with high patient interaction and time-sensitivity such as the pharmacy?*". To achieve these aims, the study employs a Mixed-Method approach, combining quantitative analysis via SPSS Software and qualitative coding using NVivo Software. Quantitative data is collected from a structured questionnaire based on the Service Quality Model, while open-ended responses provide insights into patient emotions, frustrations, and suggestions. In addition, Root Cause Analysis (which applies Fishbone Diagram) is utilized to identify bottlenecks in pharmacy service delivery, leading to a four-stage intervention proposal focused on digital integration, task specialization, performance monitoring, and patient education. By offering both theoretical contribution and managerial implications, this study not only enriches academic literature on healthcare service quality but also provides a practical roadmap for public hospitals aiming to improve patient-centered service delivery in the Indonesian context. Through this work, Syarif Hidayatullah Hospital can serve as a replicable model that seeks to balance medical integrity with operational excellence and patient satisfaction.

Method

Participant Characteristics and Research Design

This study employed a Mixed-Method Design with a strong quantitative core and complementary qualitative components to comprehensively assess the relationship between Service Quality Dimensions and patient satisfaction in the context of a public healthcare setting. The case selected for this research was Syarif Hidayatullah Hospital, a government-managed academic hospital located in Jakarta, Indonesia, known for serving a large and diverse patient population through both BPJS (public insurance) and private payment systems. The primary objective of the study was to evaluate the five core Service Quality Dimensions - such as tangibility, Reliability, Responsiveness, assurance, and Empathy - which impacted patient satisfaction and to identify which of these had the greatest influence. To this end, the research followed a cross-sectional descriptive approach, wherein data were collected at a single point in time from a targeted population that had recently interacted with the hospital's outpatient and pharmacy departments.

Eligibility criteria for inclusion in the study required that participants be at least 17 years of age, capable of providing informed consent, and had completed a full outpatient service cycle at the hospital within the last 30 days. This ensured that participants had a recent and complete experience of the hospital's service flow, from initial registration through consultation and medication pickup. Exclusion criteria included emergency patients, those under inpatient care, and patients with cognitive impairments or significant communication barriers, as these factors could hinder the ability to provide informed and coherent responses. The sample study included a diverse demographic profile based on age, gender, education level, occupation, and type of healthcare service accessed (such as, general outpatient, insurance-based, or private). This allowed for a nuanced analysis of how demographic factors might interact with service quality perceptions. The design was chosen not only for its efficiency in gathering snapshot data across a wide base of respondents but also for its alignment with the goal of deriving statistically significant insights that could inform practical improvements in healthcare service delivery.

Sampling Procedures, Sample Size, and Instruments

Sampling was conducted using a purposive non-probability technique, targeting individuals who met the study's eligibility criteria and had recently interacted with key service points within the hospital, particularly the outpatient and pharmacy departments. Data collection took place over a span of three weeks, strategically distributed across different days and hours to capture a representative mix of patients. Trained research assistants were stationed at waiting areas and pharmacy exit points, where they approached eligible patients and invited them to participate in the study by filling out a structured questionnaire. Each participant was given a brief overview of the study's purpose, reassured about confidentiality, and asked for verbal consent. No financial incentives were offered, but participants were thanked for their time and contribution to improving hospital services.

The final sample consisted of 120 completed and valid responses, which exceeded the minimum sample size determined through power analysis. This analysis was conducted using a 90% confidence level and a 10% margin of error, considering a medium effect size based on prior studies in the same domain. The sample size was sufficient to ensure reliable estimation of parameters for regression and correlation analysis, as well as to allow for subgroup comparisons based on demographics and service types. The sample was also large enough to support thematic saturation in the qualitative portion of the study. To capture qualitative insights, the questionnaire included an open-ended section asking respondents to elaborate on any specific experiences - positive or negative - that stood out during their visit. These narratives provided context to the quantitative ratings and were particularly valuable in understanding the underlying reasons for dissatisfaction, especially concerning delays, communication breakdowns, or perceived neglect.

The instrument used in this study was an adapted version of the Service Quality Questionnaire, originally developed by Parasuraman et al. (1988), and modified to reflect the healthcare context in Indonesia. The questionnaire consisted of three parts. The first section collected demographic information such as age, gender, education, employment, and payment method (BPJS or private). The second section measured perceptions of service quality across five dimensions, such as Tangibility (examples are cleanliness of facilities and modern-looking equipment), Reliability (examples are accurate diagnosis and timely delivery of services), Responsiveness (examples are willingness of staff to assist and provide timely service), Assurance (examples are competence and courtesy of medical staff), and Empathy (example is individualized attention and care). Each dimension was assessed through four to five statements rated on a five-point Likert Scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The third section evaluated overall patient satisfaction using three statements focusing on whether the service met expectations, whether the experience was satisfactory overall, and whether the patient would recommend the hospital to others.

To ensure content validity, the adapted instrument was reviewed by three subject matter experts: one academic

supervisor specializing in health service management, one senior hospital administrator, and one healthcare quality assurance officer. A pilot test was then conducted with 15 patients to check for clarity, coherence, and appropriateness of the questions. Based on feedback, minor revisions were made, including simplifying some technical terms and clarifying ambiguous statements. Reliability testing using Cronbach's Alpha yielded values above 0.80 for all five dimensions, indicating excellent internal consistency. The instrument was distributed in Bahasa Indonesia, the native language of most respondents, to ensure full comprehension and accurate responses. The open-ended section, while optional, was answered by more than half of the respondents, offering rich qualitative data that were later analyzed to support and explain the statistical findings.

Measures, Covariates, and Data Analysis Techniques

The measures used in the study were aligned with standard Service Quality Applications in healthcare and were tailored to capture both structural and interpersonal components of service delivery. Tangibility was measured through indicators such as visual appeal, cleanliness, and accessibility of facilities. Reliability included measures of consistent performance, timeliness, and medical accuracy. Responsiveness was operationalized through promptness, helpfulness, and communication effectiveness. Assurance measured confidence-building factors such as staff knowledge, courtesy, and professionalism. Empathy captured personal attention, emotional sensitivity, and patient understanding. These five dimensions served as independent variables, while overall patient satisfaction - measured through perception of value, loyalty intention, and general satisfaction - served as the dependent variable. The design did not include covariates in the statistical model, though demographic data were analyzed descriptively and used in comparative subgroup analysis to highlight patterns and disparities.

The quantitative method in this study was designed to assess patient perceptions of service quality at Syarif Hidayatullah Hospital using the Service Quality Model, which includes five dimensions: Tangibility, Reliability, Responsiveness, Assurance, and Empathy. A structured questionnaire with a five-point Likert Scale was administered to patients who had completed outpatient or pharmacy services. The data collected were processed using IBM SPSS Version 30. The analysis began with descriptive statistics, including mean, median, standard deviation, mode, and frequency distribution to summarize perceptions across service dimensions and demographic attributes. These demographic variables included age, gender, education level (ranging from elementary to undergraduate degree), occupation (examples are civil servants, private sector workers, business owners, health workers), and the type of hospital services accessed (such as general, dental, pediatric, nutrition, eye, or obstetrics polyclinics). This initial analysis provided a foundational view of how different patient groups rated each aspect of service quality. On the other hand, these research findings provided crucial insights into targeted service improvements.

For qualitative analysis, responses to the open-ended question were transcribed and analyzed using NVivo 14 Software. Thematic coding was applied to identify recurring themes such as long wait times, unclear communication, lack of Empathy, and facility discomfort. Word frequency analysis and visualization tools were used to highlight the dominant issues mentioned by patients. For instance, terms like "*queue*", "*long times*", and "*not explained*" appeared frequently in the context of pharmacy services, aligning with the lowest-rated dimension in the quantitative data. This triangulation of findings between statistical scores and narrative feedback enriched the overall interpretation, offering a layered understanding of both what and why patients felt dissatisfied or satisfied. Moreover, the integration of qualitative and quantitative data allowed the study to not only identify service gaps but also uncover the emotional and cognitive perceptions patients attach to those service encounters, adding depth to the conclusion and the practical recommendations that followed.

Results and Discussion

Quantitative Analysis

The quantitative analysis conducted in this study offers significant insights into the evaluation of Service Quality Dimensions at Syarif Hidayatullah Hospital and their influence on patient satisfaction, utilizing the Service Quality Framework consisting of Tangibility, Reliability, Responsiveness, Assurance, and Empathy. Based on the data gathered from 120 respondents through a structured questionnaire employing a five-point Likert Scale, each dimension was assessed using two key indicators. The results of the descriptive statistical analysis in Table 1 reveal that the Empathy dimension received the highest mean score among the five, with CQ1 averaging 4.27 and CQ2 slightly higher at 4.33, supported by relatively low standard deviations of 0.707 and 0.655, respectively. This indicates a strong and consistent perception among patients that the hospital staff provided personalized attention, care, and emotional sensitivity, fulfilling expectations in terms of interpersonal engagement. Tangibility, which refers to the physical environment, cleanliness, equipment, and appearance of personnel, also performed well, with mean scores of 4.21 and 4.26 and low variability across responses, implying a generally favorable view of the hospital's physical facilities. Assurance and Reliability followed closely, with Assurance CQ1 and CQ2 both scoring 4.27 and standard deviations of 0.670 and 0.698, respectively, suggesting a high degree of trust in the hospital's professional staff and their competence. Reliability, measured through service consistency and dependability, obtained means of 4.07 and 4.22, showing that while patients recognized dependability in care, there remained minor inconsistencies in delivery across services. However, the Responsiveness Dimension received the lowest average ratings, with CQ1 scoring 4.10 and CQ2 at 4.13, and demonstrated the highest standard deviations of 0.814 and 0.744. These figures signal significant variation in patient experiences related to timeliness, staff attentiveness, and communication effectiveness, pointing to operational inefficiencies, especially in pharmacy services and queue management. These findings were further reinforced by the regression and correlational analyses. This result is particularly important as it reflects the Expectation-Confirmation Theory (Oliver, 1980), which posits that satisfaction is the result of the comparison between initial expectations and actual service received.

Table 1. Descriptive Statistics of Service Quality Dimensions

Variables	N	Min	Max	Mean	Standard Deviation	Variance.
Tangible - CQ1	120	2	5	4.21	.697	.486
Tangible - CQ2	120	2	5	4.26	.655	.429
Reliability - CQ1	120	2	5	4.07	.896	.802
Reliability - CQ2	120	1	5	4.22	.783	.613
Assurance - CQ1	120	2	5	4.27	.670	.449
Assurance - CQ2	120	2	5	4.27	.698	.487
Responsiveness - CQ1	120	2	5	4.10	.814	.662

Responsiveness - CQ2	120	2	5	4.13	.744	.554
Empathy - CQ1	120	2	5	4.27	.707	.500
Empathy - CQ2	120	3	5	4.33	.655	.443

Qualitative Analysis

The qualitative analysis conducted in this research serves to complement and deepen the understanding of quantitative findings by capturing the nuanced perceptions, emotions, and lived experiences of patients at Syarif Hidayatullah Hospital, which is figured on Figure 1 and Figure 2. Utilizing open-ended responses from 120 participants, the data was analyzed through thematic coding using NVivo 14 software and further visualized in a word cloud format to identify prominent recurring terms. Among the most frequently mentioned words were "*pelayanan*" (service), "*cepat*" (fast), "*obat*" (medicine), and "*farmasi*" (pharmacy), all of which are strongly associated with service delivery processes and patient expectations. The centrality of the word "*services*" reflects that patients place high importance on their overall service experience, not just clinical interactions, but the entire administrative and operational flow. The words "*cepat*" (fast) is often linked, suggesting dissatisfaction with perceived delays and a lack of timely responses, particularly in pharmacy operations. This is reinforced by NVivo coding results which show that the word "*obat*" (medicine) was mentioned 24 times, followed by "*pelayanan*" (services) at 22 occurrences, indicating that pharmacy services were the most significant source of patient comments, both complaints and suggestions. Many participants specifically recounted long waiting times for medications, unclear queue management, and inadequate communication from staff regarding prescription readiness. Patients expressed feelings of uncertainty and frustration, especially when they were not given updates or had to ask repeatedly about their medication status. These hospital experiences suggest operational inefficiencies within the pharmacy department that negatively impact the final phase of patient interaction.

Figure 1. Word Cloud Analysis

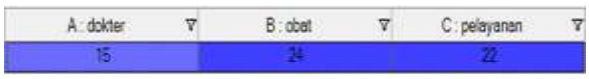

Figure 2. Sentiment Analysis

This analysis aligns with Expectation-Confirmation Theory, which posits that satisfaction results not merely from service performance but from the gap between anticipated and actual experiences. When patients expect timely service and instead encounter delays or vague responses, they are more likely to report dissatisfaction, even if the core medical treatment was successful. The theme of Responsiveness was further emphasized in qualitative responses, with patients suggesting Tangible improvements such as implementing real-time digital queue notifications, increasing pharmacy staffing during peak hours, and improving communication protocols to keep patients informed throughout their service journey.

Waiting Time in Pharmacy Analysis

The analysis of pharmacy waiting time at Syarif Hidayatullah Hospital reveals that the type of prescription being processed plays a significant role in shaping the overall patient experience and satisfaction, particularly regarding perceptions of Responsiveness, efficiency, and communication. Table 2 presents the distribution of prescription types among the study's 50-patient subset, showing that 36% of prescriptions were Non-Concoction, 34% were Concoction, and 30% were Mixed. Although the percentages appear relatively balanced, their implications for waiting time vary considerably due to the inherent differences in preparation processes. Non-Concoction prescriptions typically involve standardized or pre-packaged medications, which, in theory, should require minimal preparation time. However, patient feedback suggests that even these prescriptions were frequently delayed, indicating systemic inefficiencies not necessarily tied to medical complexity but to procedural bottlenecks and staff Responsiveness. The most critical concern, however, lies with Concoction and Mixed prescriptions, which involve more labor-intensive processing. Concoction medications require pharmacists to manually compound drugs based on physician instructions, which not only extends the preparation time but also introduces variables related to ingredient availability, pharmacist workload, and verification protocols.

Table 2. Percentage of Research Samples

Recipe Type	Amount	Percentage
Concoction	17	34.0%
Non-Concoction	18	36.0%
Mixed	15	30.0%

Table 3. Waiting Time Analysis by Recipe Type

Recipe Type	Time Average	Median Time	Maximum Time	Minimum Time	Standard Deviation
Concoction	00:29:17	00:30:00	00:42:00	00:13:00	00:07:02
Non-Concoction	00:18:40	00:18:29	00:25:00	00:13:00	00:03:15
Mixed	00:34:52	00:37:00	00:46:00	00:21:00	00:07:37

The pharmacy waiting time analysis based on prescription type at Syarif Hidayatullah Hospital reveals a critical operational gap that significantly affects the patient's experience and perception of service Responsiveness, one of the five core dimensions of service quality. The quantitative breakdown, as presented in Table 3, compares waiting times across three categories of prescriptions, which are Concoction, Non-Concoction, and Mixed prescriptions. These categories differ in procedural complexity, and the data indicate that they result in markedly different service durations. Non-Concoction

prescriptions, generally consisting of standardized, ready-made medications, exhibit the most efficient processing time with an average waiting time of 18 minutes and 40 seconds, a median of 18 minutes and 29 seconds, and a standard deviation of only 3 minutes and 15 seconds. This low variability indicates consistent service delivery and sets a baseline expectation among patients for swift pharmaceutical fulfillment. The maximum waiting time recorded was 25 minutes, while the minimum was 13 minutes, demonstrating that this category remains largely within acceptable waiting thresholds. The efficiency in Non-Concoction cases suggests that when prescription handling follows a predictable and straightforward workflow, the system performs adequately. However, the situation becomes significantly more complicated with Concoction prescriptions, which involve pharmacist-prepared mixtures of two or more drugs. These prescriptions recorded an average waiting time of 29 minutes and 17 seconds, with the maximum time reaching 42 minutes, and a notably wider standard deviation of 7 minutes and 2 seconds, indicating inconsistencies and longer delays in preparation.

Although the minimum time remained at 13 minutes, consistent with Non-Concoction prescriptions, the broader spread implies that some patients receive faster service while others face extensive delays. The median waiting time of 30 minutes further reinforces that for at least half of the patients, the experience was considerably more time-consuming than for those receiving standard medication. This added time can be attributed to the manual steps involved in preparing these Concoction, including the need for proper formulation, double-checking dosage accuracy, and ensuring that ingredients are available and not expired. Such tasks, while clinically necessary, appear to be poorly integrated into the hospital's current pharmacy workflow, which lacks mechanisms to manage patient expectations or communicate delays proactively. The issue becomes most acute in the category of Mixed prescriptions, which combine both Concoction and Non-Concoction elements. These prescriptions had the longest average waiting time at 34 minutes and 52 seconds, a median of 37 minutes, a maximum wait of 46 minutes, and the highest standard deviation at 7 minutes and 37 seconds. This category not only reflects a significant time burden on the patient but also illustrates the operational breakdown within the pharmacy process. Patients receiving Mixed prescriptions often experienced fragmented service, where they were provided with the readily available medications and asked to wait for the compounded ones. This split delivery approach added confusion, extended hospital visits unnecessarily, and created perceptions of inefficiency, even if each portion of the prescription was handled with technical accuracy. Based on that, there has a positive impact of standardized operating procedures and possibly digital inventory support systems. In contrast, Concoction prescriptions, while averaging the lowest number of items, present a disproportionately higher burden on staff time and resource coordination due to the nature of manual drug compounding. Each item in a Concoction prescription typically requires precision measurement, mixing, and verification by trained pharmacists, and may also involve cross-checking with physician instructions and documentation for dosage safety. As such, even with fewer items per prescription,

This phenomenon highlights that average item count is an inadequate standalone indicator of service complexity, as the type of preparation involved has a far more direct impact on waiting time and patient satisfaction. Patients who are not aware of the additional care and processing required for compounded prescriptions may experience frustration when observing others with what appears to be similar or even more complex prescriptions being served faster. This disconnects between patient perception and pharmacy workload underlines the critical role of communication in healthcare services, especially in bridging gaps in understanding operational workflows. The Mixed prescription category, averaging 2.60 items per prescription, presents a hybrid challenge, combining the characteristics of both Non-Concoction and Concoction the cumulative preparation time is often significantly longer than for Non-Concoction prescriptions.

Table 4. Average Drug Items in One Prescription

Recipe Type	Average
Concoction	2.58
Non-Concoction	2.67
Mixed	2.60

The analysis of the average number of drug items per prescription, as shown in Table 4, provides valuable insight into how prescription complexity influences pharmacy service efficiency at Syarif Hidayatullah Hospital, particularly in relation to patient perceptions of Responsiveness, which has emerged as the weakest-performing dimension in both the quantitative and qualitative assessments of service quality. According to the table, the average number of items in a single prescription is relatively consistent across the three categories, such as 2.67 items for Non-Concoction prescriptions, 2.60 for Mixed prescriptions, and 2.58 for Concoction prescriptions. Although these differences may seem minimal on the surface, the operational implications are profound when contextualized within the broader patient experience and workflow constraints. On the other variable, Non-Concoction prescriptions, which include standardized or pre-packaged medications, recorded the highest average number of items, suggesting that despite the higher count, they are managed efficiently due to their routine nature, automated retrieval systems, and the relative ease of dispensing. These prescriptions are likely processed in a batch-oriented workflow where pharmacy staff are familiar with the products, packaging formats, and storage locations, allowing for quicker turnaround times and greater standardization. This efficiency, reflected in the shorter waiting times associated with Non-Concoction categories, suggests that the pharmacy's infrastructure is optimized for high-frequency, low-complexity tasks, and demonstrates the become a bottleneck if the system lacks digital support, automated inventory management, or tiered processing lanes. The frequency data in Table 5, therefore, should not be viewed in isolation, but rather as a mirror of the pharmacy's daily challenge in managing queue expectations, turnaround time, and service equity across a large patient base. Patients who receive prescriptions with one item - although only 14% of the sample - may expect to be served more quickly due to the simplicity of their request yet often experience delays equal to or longer than those with more complex prescriptions, particularly in the absence of a priority lane or express counter. This mismatch between patient expectation and actual experience is a critical driver of dissatisfaction and was repeatedly highlighted in qualitative feedback where patients expressed confusion and frustration regarding queue fairness, unexplained delays, and the perceived randomness in the order of service. Without transparency regarding how prescriptions are triaged or fulfilled, patients begin to form negative assumptions about favoritism, incompetence, or disorganization, which is the factors that severely erode trust in the institution.

medications. This category is particularly problematic because it introduces variability and dual-process handling within the same service transaction. A patient receiving a Mixed prescription often receives a portion of their medication quickly - typically the Non-Concoction items - while being asked to wait, sometimes indefinitely, for the compounded elements to be completed. This fractured delivery model not only elongates the overall pharmacy experience but also creates confusion, dissatisfaction, and a sense of incomplete service.

Table 5. Frequency Number of Drug Items in One Prescription

Number of Drug Items	Frequency	Percentage

in One Prescription		
1	7	14.0%
2	18	36.0%
3	15	30.0%
4	9	18.0%
5	1	2.0%

The analysis of prescription complexity based on the number of drug items per prescription, as shown in Table 5, provides a detailed understanding of the operational workload facing the pharmacy team at Syarif Hidayatullah Hospital and how this complexity directly contributes to patient satisfaction outcomes, particularly within the domain of Responsiveness, the Service Quality Dimension most critically impacted in this research. According to the table, the most common prescription configurations involved two drug items, accounting for 36.0% of all samples, followed by three items at 30.0%, four items at 18.0%, one item at 14.0%, and five items at just 2.0%. This distribution indicates that while high-volume prescriptions are relatively rare, a significant majority of prescriptions fall within the two- to four-item range, suggesting that the pharmacy routinely handles moderate levels of complexity across most service encounters. However, even this moderate complexity, if not supported by efficient workflow design and adequate resourcing, can result in significant delays and patient dissatisfaction. A prescription with two or three items may appear manageable from a technical standpoint but becomes burdensome when multiplied by dozens of patients during peak hours, especially when compounded with manual processes, inconsistent communication, and staff shortages. Each additional item in a prescription introduces multiple operational steps, including item verification, drug retrieval, dosage confirmation, potential compounding (if it is required), and final packaging, any of which can become a bottleneck if the system lacks digital support, automated inventory management, or tiered processing lanes. The frequency data in Table 5, therefore, should not be viewed in isolation, but rather as a mirror of the pharmacy's daily challenge in managing queue expectations and service equity across a large patient base.

Discussion

This study has revealed multifaceted findings that converge on a central issue in the healthcare service delivery of Syarif Hidayatullah Hospital, the inadequate Responsiveness of pharmacy services, which has emerged as the most prominent determinant of patient dissatisfaction. The quantitative results, measured using the Service Quality Model through five core dimensions (such as Tangibility, Reliability, Responsiveness, Assurance, and Empathy), clearly positioned Responsiveness as the weakest dimension, both in terms of mean score and variability. Responsiveness was not only rated the lowest across indicators but also exhibited the highest standard deviation, indicating inconsistency in how patients experienced timeliness and staff attentiveness. In contrast, Empathy and Assurance scored relatively high, signifying that patients appreciated the professionalism, kindness, and emotional sensitivity of the staff. However, those strengths were unable to offset delays, particularly in the pharmacy process, where waiting times extended well beyond reasonable expectations, especially for Mixed and Concoction prescriptions. This pattern reflects a service delivery paradox where the technical quality of care (examples are diagnosis, consultation, Empathy) is undermined by operational inefficiencies in support services. Waiting time analysis demonstrated that while Non-Concoction prescriptions had an average waiting time of 18 minutes and 40 seconds, Concoction prescriptions averaged 29 minutes and 17 seconds, and Mixed prescriptions were the most time-consuming, with an average of 34 minutes and 52 seconds. These delays are especially problematic in outpatient settings where patients expect seamless transitions between departments. The lack of clear communication, real-time updates, or a transparent queue system only intensified frustration. This is supported by NVivo-based qualitative analysis, where words, such as "*obat*" (medicine), "*cepat*" (fast), and "*menunggu*" (waiting), are dominated patient feedback. Patients frequently expressed disappointment at the absence of information regarding when their medication would be ready, especially after a long wait post-consultation. In many cases, compounded prescriptions were partially delivered, requiring patients to return later, disrupting their schedules and magnifying their perception of inefficiency.

This failure to meet patient expectations, as interpreted through the Expectation-Confirmation Theory, becomes a key lens through which dissatisfaction can be understood. When patients anticipate quick and responsive service - particularly in the pharmacy, which serves as the final step in their care journey - the gap between that expectation and the actual experience can cause a significantly negative emotional response. In the qualitative data, many patients conveyed that they would have been more understanding had the hospital communicated anticipated delays proactively or explained why certain prescriptions required longer preparation. The lack of perceived control and transparency became more damaging than the waiting itself. Supporting data from Tables 4 and 5, which presented the average and frequency of drug items per prescription, revealed that most prescriptions consisted of two to three items. Although these seem manageable from a volume perspective, the lack of triaging based on prescription complexity resulted in compounded delays. For instance, a patient with only one or two items may have had to wait just as long as one with four or five, due to the absence of queue prioritization systems. The patient experience was also impacted by the pharmacy's inability to flag high-complexity prescriptions early, further slowing the process for everyone in the queue. Although the average number of drug items per prescription was similar across Concoction (2.58), Non-Concoction (2.67), and Mixed (2.60), this average did not fully capture the hidden workload variation. For example, Concoction items require manual compounding, which is more labor-intensive, but patients are often unaware of this difference and may perceive the delay as incompetence or negligence. Compounding the issue is the lack of digital infrastructure. The hospital does not currently provide digital queue tracking, real-time notifications, or Short Message Services-based updates, all of which could significantly improve the perception of Responsiveness even if actual waiting times remained constant. The qualitative findings reflect this gap clearly, many patients expressed a desire for faster service, clearer instructions, and more proactive staff communication. This finding exemplifies the broader sentiment that lack of Responsiveness is not just a matter of speed, but of predictability, clarity, and accountability.

Beyond patient perceptions, the discussion of findings also points to systemic issues within hospital pharmacy management and its alignment with the broader service quality framework. The high volume of prescriptions combined with manual processes has led to workload bottlenecks that frontline staff are unequipped to manage efficiently. This issue is particularly acute during peak hours, when staff must juggle walk-in patients, fulfill prescriptions of varying complexity, and manage queues without an intelligent triage system or task distribution dashboard. As a result, pharmacy staff may unintentionally prioritize prescriptions randomly or by perceived urgency, creating inconsistencies in service and fueling patient frustration. These inconsistencies are reflected in the descriptive data through high standard deviations in Responsiveness scores and pharmacy waiting timetables. Furthermore, the thematic coding from open-ended responses indicated that patients who had satisfactory experiences with

doctors or nurses often revised their satisfaction downward after prolonged delays in the pharmacy. This finding suggests a form of service quality interdependence, where the final experience (such as, pharmacy interaction) has a disproportionately high impact on patients' overall impressions of care. In this sense, pharmacy Responsiveness serves as a tipping point: a weak link that, if not corrected, can offset the gains made in clinical excellence, patient Empathy, and facility tangibility. The discussion also revealed that despite high ratings in other dimensions, Responsiveness Dimension had the most direct statistical correlation with overall satisfaction scores. This validates the strategic importance of focusing on response time, communication skill, and efficiency improvements as core objectives for hospital management. It also underscores the urgency of institutionalizing a pharmacy performance monitoring system with service-level indicators such as average waiting time by prescription type, response time to inquiries, and percentage of completed prescriptions within a target time frame. Real-time data should guide staff allocation and prescription routes, especially for Concoction and Mixed orders, which consistently showed the highest waiting times in this study. The introduction of a dashboard-based Key Performance Indicator system would not only help pharmacy leaders track operational performance but also allow management to intervene proactively when performance thresholds are not met.

Based on that explanation, this discussion highlights the complex but critical relationship between operational Responsiveness and patient satisfaction in the hospital's pharmacy setting. The findings show that Responsiveness is not merely a measurement of speed but a broader reflection of how well the hospital system anticipates, manages, and communicates with patients during the delivery of healthcare services. While technical care remains robust at Syarif Hidayatullah Hospital, evidenced by high scores in Assurance and Empathy, the operational inefficiencies within the pharmacy significantly dilute those gains. Patients interpret service holistically; therefore, one weak link in the chain can break the entire perception of quality. To rectify this, the hospital should undertake structural and cultural reforms centered on pharmacy Responsiveness. Solutions should include implementing triaged service queues, expanding digital infrastructure for communication, and redistributing workloads based on prescription complexity. Additionally, hospital staff should be trained to communicate proactively and empathetically, especially when delays are unavoidable. Responsiveness should no longer be viewed as a soft skill or support function, but as a strategic imperative that defines the hospital's identity, efficiency, and long-term sustainability. By integrating Responsiveness into the institutional fabric of service delivery, Syarif Hidayatullah Hospital will not only raise patient satisfaction scores but also establish itself as a benchmark for operational excellence in Indonesia's public healthcare landscape.

Limitation Of The Study

This study, while offering valuable insights into the relationship between Service Quality Dimensions and patient satisfaction at Syarif Hidayatullah Hospital, is not without its limitations. Firstly, the scope of data collection was limited to the outpatient and pharmacy departments, which may not comprehensively reflect the experiences of patients in other units such as inpatient care, emergency services, or specialized clinics. Consequently, the results may not be generalizable to the hospital's full spectrum of healthcare services. In addition, the data was collected over a fixed period, potentially missing temporal variations in patient volume, staff performance, or administrative efficiency that occur throughout different times of the year. The use of a structured Likert Scale questionnaire, while methodologically sound for capturing patient perceptions, inherently limits the depth of responses and may be influenced by the respondents' recent emotional states or recall bias. Although qualitative feedback was also included through open-ended responses, participation in this section was voluntary, which may have led to self-selection bias, as more expressive or dissatisfied patients may have been overrepresented. Furthermore, the waiting time analysis focused only on prescription processing duration, without capturing real-time pharmacy staffing constraints, drug stock fluctuations, or unforeseen technical interruptions. These factors should be considered when interpreting the findings and in designing future research that builds on this study's foundation with a broader and more diversified sample.

Conclusions and Recommendations

The findings of this study affirm that service quality plays a vital role in shaping patient satisfaction within public healthcare institutions, with particular emphasis on the performance of pharmacy services at Syarif Hidayatullah Hospital. Using the Service Quality Model, this research measured the five dimensions of service quality and revealed that Responsiveness is the most influential yet also the most deficient dimension from the patient's perspective. Quantitative data from Likert Scale responses indicated that Responsiveness had the lowest average score and the widest standard deviation, reflecting inconsistencies in patient experiences and service delivery Reliability. These inconsistencies were strongly linked to operational inefficiencies within the pharmacy, particularly concerning waiting times for medication fulfillment. While tangibility and assurance were perceived positively, particularly in terms of infrastructure and staff professionalism, patients consistently highlighted delays in receiving prescriptions, lack of information about queue order, and absence of transparent communication as central to their dissatisfaction. The qualitative component of the study, facilitated by NVivo thematic analysis, further validated this claim by capturing patient narratives that consistently referenced long waits, poor communication, and confusion during pharmacy visits. The data also showed that while most prescriptions contained a manageable number of drug items, processing complexity, especially in Mixed and Concoction prescriptions, contributed to extensive delays due to lack of prioritization and workflow segmentation. Waiting time analysis revealed that Mixed prescriptions could take up to 46 minutes on average, significantly impacting the perception of Responsiveness. Patients expressed frustration not only with the wait itself but with the uncertainty and lack of status updates. Thus, the study concludes that while Syarif Hidayatullah Hospital has made progress in clinical service delivery, the Responsiveness of its pharmacy operations remains a critical bottleneck that undermines patient trust, disrupts continuity of care, and negatively affects overall satisfaction.

Based on the outcomes of this study, several important suggestions for future research are proposed to fill the gaps and limitations encountered in the current project. *First*, future studies should expand the sample beyond the outpatient and pharmacy departments to include inpatient services, emergency care, and specialized medical clinics. *Second*, longitudinal research should be considered to track changes in patient satisfaction and service quality over time. By conducting studies at different points in the year and across various shifts, researchers can capture seasonal and operational fluctuations that affect Responsiveness and service performance. Additionally, further studies could include different respondent segments such as caregivers, elderly patients, or those with chronic illnesses, whose needs and expectations may differ significantly. *Third*, future research should incorporate the perspectives of healthcare staff, particularly pharmacists, nurses, and administrative personnel, to understand the internal challenges they face in fulfilling prescriptions or responding to patient inquiries in a timely manner. Gaining insight from staff can reveal hidden system constraints such as prescription volume overload, limitations of Information

Technology, and staff fatigue that may not be visible to patients but significantly affect service delivery aspect. *Fourth*, incorporating digital health innovations into research design will allow future researchers to assess the impact of real-time pharmacy queue systems, automated updates, or mobile apps on perceived Responsiveness. *Fifth*, a comparative study involving multiple public hospitals with similar patient loads could help determine whether the issues found at Syarif Hidayatullah Hospital are systemic or unique to the institution. These broader perspectives will allow for more actionable policy recommendations and a stronger understanding of how Responsiveness Dimension can be improved within Indonesia's public healthcare system at large.

In response to the findings and considering the real-world operational context of Syarif Hidayatullah Hospital, several strategic recommendations are proposed to improve service Responsiveness and elevate overall patient satisfaction. *First*, the hospital must immediately implement a triage-based pharmacy queue system that categorizes prescriptions by type (Concoction, Non-Concoction, Mixed) and complexity. *Second*, pharmacy staff should be equipped with a dashboard-based monitoring system that tracks real-time prescription statuses, patient wait times, and staff performance indicators. *Third*, the hospital should adopt a standardized operating procedure that includes average estimated wait times for each prescription type, with staff required to communicate these estimates to patients at the time of prescription drop-off. *Fourth*, workflow redesign is necessary to reduce bottlenecks during peak hours. *Fifth*, the hospital should invest in ongoing staff training programs that reinforce the importance of empathetic communication, queue transparency, and patient engagement. *Sixth*, collaboration with the Information Technology Department and digital transformation teams should be prioritized to pilot e-prescription integration, prescription tracking, and digital feedback systems that allow patients to rate their pharmacy experience. *Sixth*, regular audits and performance reviews must be conducted to evaluate pharmacy service metrics, including average wait time, prescription fulfillment rate, and the volume of patient complaints. By addressing the gaps in Responsiveness through a combination of technological innovation, operational redesign, and cultural reinforcement, Syarif Hidayatullah Hospital can transform its pharmacy service into a model of efficiency and patient-centered care. These improvements will not only enhance patient satisfaction scores but also align the hospital's operations with the best practices in healthcare service delivery, contributing positively to its reputation, trustworthiness, and institutional sustainability.

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